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EXAMINER

HA, LEYNNA A

ART UNIT	PAPER NUMBER
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2135

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06/01/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/457,914

**Applicant(s)**

CARONNI ET AL.

**Examiner**

LEYNNA T. HA

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7-11,13-20,22,24-31,33-37,39 and 41-48 is/are pending in the application.
- 4a) Of the above claim(s) 4, 6, 12, 21, 23, 32, 38, and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-11,13-20,22,24-31,33-37,39 and 41-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/28/07.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

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**DETAILED ACTION**

1. Claims 1-3, 5, 7-11, 13-20, 22, 24-31, 33-37, 39, and 41-48 are pending.  
Claims 4, 6, 12, 21, 23, 32, 38, and 40 remains cancelled.
2. This is a Final rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3, 5, 7-11, 13-20, 22, 24-31, 33-37, 39, and 41-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devine, et al. (US 6,606,708), and in further view of Mattaway, et al. (US 6,226,678).**

**As per claims 1, 18, and 35:**

Devine, et al. teaches a method executed in a data processing system for providing communication access between a first process associated with a first node and a second process associated with a second node, the method comprising:

sending a request from the first node to an administrative machine (**col.8, lines 23-30 and col.13, lines 31-33**) to verify a first node identification associated with the first process; (**col.8, lines 30-31 and 66-67**)

in response to the request, receiving security context information at the first node from the administrative machine (**col.8, lines 32-35 and col.14, lines 11-14**), the security context information comprising a virtual address for the first node; (**col.23, lines 61-64 and col.24, lines 7-9**)

appending the security context information for the first process in a process table; (**col.9, lines 60-63, col.14, lines 23-30**)

opening a socket between the first process and the second process; and (**col.8, lines 22-26**)

transmitting a packet from the first process to the second process through the open socket (**col.26, lines 54-57**), the packet comprising the security context information for the first process in the process table (**col.14, lines 6-11**).

Devine suggest a databases which include each customer's network management information and data (col.9, lines 60-63), so would have been obvious to suggest a process table for appending (or fixing or attaching) security information for future referencing to verify and/or validation purposes. But Devine does not implicitly suggest a process table. Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 30-33 and col.20, lines 15-23). Thus, it is obvious for a person of ordinary skills in the art for Devine and Mattaway combination to teach a process table for comparison and matching purposes to verify or associate the received information.

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to another such that this comparison/verification can identify a particular client/node from the received information (Mattaway- col.20, lines 19-23 and col.23, lines 35-65).

In addition, Devine teaches transmitting a packet from the first process to the second process through the open socket but did not provide transmitting the packet without passing through the administrative machine.

Mattaway discloses the first processing unit 12 is the claimed first node and the connection server 26 is the claimed administrative machine. (col.7, lines 9-20) to verify a first node identification associated with the first process (col.3, lines 7-10 and col.18, lines 21-25). Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 30-33 and col.20, lines 15-23). A process table obviously is for comparison and matching purposes to verify or validate the received data in the packet. Further, Mattaway discloses opening a socket between the first process and the second process (col.8, lines 28-29) and transmitting a packet from the first process to the second process through the open socket (col.12, lines 21-24) without passing through the administrative machine in the form of connection server, the packet comprising the security context information for the first process in the process table (col.22, lines 21-26). The security context information can broadly be given as the IP address whether temporary or permanent being associated with the request of the first user to communicate with the second user (col.7, lines 63-67 and col.8, lines 59-65)

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where the real time communication may be established without requiring permanent IP address to be assigned to either of the users (col.9, lines 13-30). Thus, temporary or permanent IP address can also be considered the virtual address. Mattaway discloses without passing through the connection server by the point-to-point Internet communication of transmitting a packet from the first process to the second process through the open socket (col.6, lines 19-21). The only purpose of a connection server is for directory and information related services, which obviously suggest direct communication between the first process and the second process (col.12, lines 36-41 and col.17, lines 17-18). Therefore, it would have been obvious for a person of ordinary skills in the art to combine Devine with the teaching of transmitting the packet from the first process to the second process through the open socket without passing through the connection server (or administrative machine) of Mattaway because this suggests using a connection server is for directory and information related services and to verify a node so that the node can directly communicate with another node (col.12, lines 36-41).

**As per claims 2, 19, and 36:** See Devine on col.12, lines 34-37; discusses modifying a socket structure so as to accept the security context information.

**As per claims 3, 20, and 37:**

Devine discloses receiving the packet at the second process through the socket;

**(col.8, lines 33-35)**

verifying the security context information received in the packet; and **(col.11, line 41 thru col.12, line 12)**

permitting use of the packet if the security context information is verified. (**col.9, lines 24-26**)

**As per claims 5, 22, and 39:** See **Mattaway** on **col.18, lines 30-33** and **col.20, lines 15-23**; discusses comparing the security context information in the received packet and security context information in another process table.

**As per claims 7, 24, and 41:** See **Devine** on **col.10, lines 38-45** and **col.20, lines 53-63** and **Mattaway** on **col.19, lines 61-67**; discusses determining whether the first and second process belong to two different linked channels; and permitting use of the packet when the different channels are linked.

**As per claims 8, 25, and 42:** See **Devine** on **col.8, lines 23-35** and **col.24, line 2** and **col.26, lines 40-42**; discusses determining whether the first and second process belong to two different linked channels includes initiating a process that spawns two child processes that are connected by a shared-memory region in a memory.

**As per claims 9, 26 and 43:** See **Devine** on **col.8, lines 27-28** and **col.12, lines 34--37**; discusses permitting use of the packet includes decrypting the packet on a node and authenticating a sender associated with the first process on the node.

**As per claims 10 and 27:** See **Devine** on **col.9, lines 2-10** and **col.14, lines 6-11**; discusses obtaining the security context information from a third process, the security context information comprising a virtual address and a node identification.

**As per claims 11, 28 and 45:** See **Devine** on **col.13, lines 31-67**; discusses modifying a network stack such that the network stack requires the security context information to be present in the socket structure to transmit.

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**As per claim 13:** See Devine on col.8, lines 52-55; discusses receiving a key that corresponds to the first node identification from the server.

**As per claim 14:** See Devine on col.9, lines 6-13 and col.13, lines 31-67; discusses encrypting a packet transmitted by the first process using the key; and encapsulating the encrypted packet with a header that comprises the first node identification.

**As per claim 15:**

Devine teaches a method of claim 1, further comprising:

    sending a second request from the second node (col.14, lines 6-35) to the server to verify node identification; (col.13, lines 65-67)

    receiving additional security context information comprises from the server, wherein the additional security context information includes a second virtual address for the second node; (col.22, lines 25-30 and col.23, lines 26-28)

    creating the second process; and

    appending the security context information for the second process in the process table associated with the second process. (col.9, lines 60-63, col.14, lines 23-30)

**As per claims 16 and 33:**

Devine teaches a method executed in a data processing system for providing secure communications between a first process associated with a first node and a second process associated with a second node, comprising:



obtaining node identification comprising a virtual address (**col.23, lines 61-64 and col.24, lines 7-9**) from an administrative machine; (**col.10, lines 55-59 and col.23, lines 17**)

including the node identification in a field corresponding to the first process in a process table; (**col.9, lines 60-63, col.14, lines 23-30**)

transmitting a datagram that contains the node identification the first process to a socket; and (**col.13, lines 60-63 and col.14, lines 11-14**)

receiving the datagram at the second process that contains the node identification and a second virtual address (**col.22, lines 55-56 and col.23, lines 26-28**).

Devine suggest a databases which include each customer's network management information and data (col.9, lines 60-63), so would have been obvious to suggest a process table for appending (or fixing or attaching) security information for future referencing to verify and/or validation purposes. But Devine does not implicitly suggest a process table. Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 30-33 and col.20, lines 15-23). Thus, it is obvious for a person of ordinary skills in the art for Devine and Mattaway combination to teach a process table for comparison and matching purposes to verify or associate the received information

to another such that this comparison/verification can identify a particular client/node from the received information (Mattaway- col.20, lines 19-23 and col.23, lines 35-65).

In addition, Devine teaches transmitting a packet from the first process to the second process through the open socket but did not provide transmitting the packet without passing through the administrative machine.

Mattaway discloses the first processing unit 12 is the claimed first node and the connection server 26 is the claimed administrative machine. (col.7, lines 9-20) to verify a first node identification associated with the first process (col.3, lines 7-10 and col.18, lines 21-25). Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 30-33 and col.20, lines 15-23). A process table obviously is for comparison and matching purposes to verify or validate the received data in the packet. Further, Mattaway discloses opening a socket between the first process and the second process (col.8, lines 28-29) and transmitting a packet from the first process to the second process through the open socket (col.12, lines 21-24) without passing through the administrative machine in the form of connection server, the packet comprising the security context information for the first process in the process table (col.22, lines 21-26). The security context information can broadly be given as the IP address whether temporary or permanent being associated with the request of the first user to communicate with the second user (col.7, lines 63-67 and col.8, lines 59-65).

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where the real time communication may be established without requiring permanent IP address to be assigned to either of the users (col.9, lines 13-30). Thus, temporary or permanent IP address can also be considered the virtual address. Mattaway discloses without passing through the connection server by the point-to-point Internet communication of transmitting a packet from the first process to the second process through the open socket (col.6, lines 19-21). The only purpose of a connection server is for directory and information related services, which obviously suggest direct communication between the first process and the second process (col.12, lines 36-41 and col.17, lines 17-18). Therefore, it would have been obvious for a person of ordinary skills in the art to combine Devine with the teaching of transmitting the packet from the first process to the second process through the open socket without passing through the connection server (or administrative machine) of Mattaway because this suggests using a connection server is for directory and information related services and to verify a node so that the node can directly communicate with another node (col.12, lines 36-41).

**As per claims 17 and 34:**

Devine teaches the method of claim 16, wherein obtaining a node identification further comprises:

modifying a socket structure in the socket so that the socket structure accepts the node identification; and **(col.13, lines 31-67)**

modifying a process table so that the table comprises a node identification field.  
**(col.23, lines 26-31 and col.26, lines 24-31)**

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**As per claim 29:**

Devine teaches a system for placing a process executed in a node in a security context, comprising:

an administrative machine; and **(col.6, line 8-9)**

a sending node comprising:

a transmission module that transmit a request an administrative machine to verify a sending node identification **(col.8, lines 23-30 and col.13, lines 31-33)**, and receives security context information from the administrative machine in response to the request **(col.8, lines 32-35 and col.14, lines 11-14)**, wherein the security context information comprises a virtual address **(col.23, lines 61-64 and col.24, lines 7-9)** for the sending node; **(col.13, lines 45-51 and col.24, lines 8-9)**

memory containing a process and an associated process table; and **(col.9, lines 60-63, col.14, lines 23-30)**

an appending module that appends the received security context information **(col.9, lines 60-63, col.13, lines 60-67)** and the sending node identification for the process in the process table **(col.13, line 43 thru col.14, line 17)**, wherein the transmission module transmits a packet from the process to a receiving node **(col.26, lines 54-57)**, the packet comprising the security context information for the first process in the process table. **(col.14, lines 6-11)**

Devine suggest a databases which include each customer's network management information and data (col.9, lines 60-63), so would have been obvious to suggest a process table for appending (or fixing or attaching) security information for

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future referencing to verify and/or validation purposes. But Devine does not implicitly suggest a process table. Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 30-33 and col.20, lines 15-23). Thus, it is obvious for a person of ordinary skills in the art for Devine and Mattaway combination to teach a process table for comparison and matching purposes to verify or associate the received information to another such that this comparison/verification can identify a particular client/node from the received information (Mattaway- col.20, lines 19-23 and col.23, lines 35-65).

In addition, Devine teaches transmitting a packet from the first process to the second process through the open socket but did not provide transmitting the packet without passing through the administrative machine.

Mattaway discloses the first processing unit 12 is the claimed first node and the connection server 26 is the claimed administrative machine. (col.7, lines 9-20) to verify a first node identification associated with the first process (col.3, lines 7-10 and col.18, lines 21-25). Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 30-33 and col.20, lines 15-23). A process table obviously is for comparison and matching purposes to verify or validate the received data in the

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packet. Further, Mattaway discloses opening a socket between the first process and the second process (col.8, lines 28-29) and transmitting a packet from the first process to the second process through the open socket (col.12, lines 21-24) without passing through the administrative machine in the form of connection server, the packet comprising the security context information for the first process in the process table (col.22, lines 21-26). The security context information can broadly be given as the IP address whether temporary or permanent being associated with the request of the first user to communicate with the second user (col.7, lines 63-67 and col.8, lines 59-65) where the real time communication may be established without requiring permanent IP address to be assigned to either of the users (col.9, lines 13-30). Thus, temporary or permanent IP address can also be considered the virtual address. Mattaway discloses without passing through the connection server by the point-to-point Internet communication of transmitting a packet from the first process to the second process through the open socket (col.6, lines 19-21). The only purpose of a connection server is for directory and information related services, which obviously suggest direct communication between the first process and the second process (col.12, lines 36-41 and col.17, lines 17-18). Therefore, it would have been obvious for a person of ordinary skills in the art to combine Devine with the teaching of transmitting the packet from the first process to the second process through the open socket without passing through the connection server (or administrative machine) of Mattaway because this suggests using a connection server is for directory and information related services

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and to verify a node so that the node can directly communicate with another node (col.12, lines 36-41).

**As per claim 30:** See Devine on col.8, lines 52-55; discusses the transmission module further receives a key that corresponds to the sending node identification from the administrative machine.

**As per claim 31:** See Devine on col.9, lines 6-13 and col.13, lines 31-67; discussing an encryption module that encrypts the packet transmitted by the process using the key; and an encapsulating module that encapsulates the encrypted packet with a header that comprises the sending node identification.

**As per claim 44:**

Devine teaches the computer readable medium of claim 35, wherein the appending module comprises:

an obtaining module for obtaining the security context information from a third process, the security context comprising a virtual address and a node identification; and (col.9, lines 2-10 and col.23, lines 61-64)

a limiting module for limiting each of the first, second and third processes to communicate with another process provided that the communicating processes share the same node identification. (col.9, lines 2-10 and col.22, lines 25-30)

**As per claim 46:** See col.8, lines 23-35 and 14, lines 23-30; discusses determining if the first and second process belong to a channel; and accepting the transmitted packet when the first and second process belong to the channel.

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**As per claim 47:** See col.8, lines 23-35 and 14, lines 23-30; discusses means for determining if the first and second process belong to a channel; and means for accepting the transmitted packet when the first and second process belong to the channel.

**As per claim 48:** See col.8, lines 23-35 and 14, lines 23-30; discusses determining module for determining if the first and second process belong to a channel; and an accepting module for accepting the transmitted packet when the first and second process belong to the channel.

#### **Response to Arguments**

4. Applicant's arguments filed 2/28/2007 have been fully considered but they are not persuasive.

Examiner traverses the argument (pg.3) where Devine fails to disclose the security context information comprising a virtual address for the first node. Specification (page. 13) suggests the virtual address comprising an IP address and that the real address is a globally unique and meaningful public-network infrastructure. Specification and claims does not specifically explain what is considered a virtual address. Specification hints that the real address may be the security context information that is associated to another address which is the virtual address. Specification also suggests address translation (page 11). So based on the specification, a virtual address is



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associated or translated from an address that comprises an IP address. Therefore, the claimed virtual address can broadly be given as an IP address that is associated or translated from an (another) address.

Devine suggests translation process for translating a message into an underlying message or networking protocol (col.14, lines 26-28) and the use of a virtual IP address (col.23, lines 61-64 and col.24, lines 7-9). Mattaway also suggests the claimed security context information can broadly be given as the IP address whether temporary or permanent being associated with the request of the first user to communicate with the second user (col.7, lines 63-67 and col.8, lines 59-65) where the real time communication may be established without requiring permanent IP address to be assigned to either of the users (col.9, lines 13-30). Mattaway discloses the IP address is retrieved from the database is associated with the E-mail address of a specific user (col.7, lines 25-27 and col.8, lines 47-50). Thus, whether a permanent or temporary IP address can also be considered the virtual address since the address of a particular user and user's security information is associated/translated to this IP address (temporary or permanent). Therefore, the IP address disclose by the Devine and Mattaway combination obviously reads on the security context information comprising a virtual address for the first node according to the information given by applicant's specification.

The argument (3-4) of Devine and Mattaway combination does not teach claim 1 and does not teach or suggest a virtual address for the first node in a process table is traversed. As explained above, the Devine and Mattaway does read on the virtual

address. As for the process table, Mattaway discloses providing one-to-one mapping between an identifier of a WebPhone client process, such as a E-mail address, and the current IP address, dynamic or fixed, associated with that WebPhone client process (col.18, lines 21-25) where the E-mail address with the values of the records contained in on-line table and if a match occurs with one of the records contained therein, transmit the value of the IP address associated with that record to the requesting client (col.18, lines 30-40 and 50-61). This reads the process table for associating the node identifier to the security context information comprising a virtual address as claimed (col.23, lines 35-65). Thus, it is obvious for a person of ordinary skills in the art for Devine and Mattaway combination to teach a process table for comparison and matching purposes to verify or associate the received information to another such that this comparison/verification can identify a particular client/node from the received information (Mattaway- col.20, lines 19-23 and col.23, lines 35-65).

All other dependent claims are also rejected by virtue of their dependency.

### ***Conclusion***

**5. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LHa



KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100